US Army Corps of Engineers®

R&D Program: TOWNS

Work Unit: Valuation for Alternative Uses of Evacuated Floodplains

Needs & Problems Addressed:

- Difficult for USACE districts to formulate and conduct economic evaluation of projects without ability to assess suitable uses for evacuated land
- Few tools allow valuation of environmental benefits

Objectives:

- Provide USACE districts wit methodologies to evaluate environmental benefits of alternative uses of an evacuated floodplain

Above: Wisconsin floodplain; Left: ground view of the floodplain.

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Work Unit Funding Profile:

FY03	FY04	FY05	Total
$ 150k	$ 180k	$ 0k	$330k

After land was bought

Before a flood

During a flood

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Business Program/Missions Areas Supported:

- Inland Navigation __ %
- Coastal Navigation __ %
- Coastal Storm Damage Reduction 30 %
- Inland Flood Control/Damage Reduction 40 %
- Environmental Protection & Quality 30 %
- Multi-Purpose (Hydropower, Rec & Water Supply) __ %
- Emergency Management __ %
- Regulatory __ %
- Support for Others__ %

(Must to add to 100%) Total: 100 %

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CW Strategic Goals Check List: (check if applies)

- Provide sustainable water resources development & mgmt _X_
- Restore past environment degradation ___
- Provide project services of high quality _X_
- Reduce losses from natural & manmade hazards _X_
- Supports being a world class technical leader _X_
- Addresses strategic or system needs in a framework or integrated approach by developing:
  - Methods or decision support tools _X_
  - Technology to improve life cycle productivity ___
  - Technology to monitor systems, provide feedback and develop operating guidance _X_

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Which “short term” field needs does this support:

- Improves efficiencies in planning Corps flood damage reduction project
- Enhances environmental quality and sustainability
- Expedites project level decision-making
- Reduces life-cycle costs through more accurate valuation of evacuated floodplains

Field Review Group Relative Ranking:

- FRG planned for 21-22 AUG 02

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Listening Sessions Check List: (check if applies)

- Improves data sharing/exchange with the public in these areas:
  - Provides one stop shop for maps & data for basin wide planning ___
  - Provides data to make informed decisions _X_
  - Provides a system for basin wide planning _X_
  - Provides information about what is happening at Corps facilities ___ (up to date web sites)
- Tech Transfer plan to include educating the public _X_
- Coordinate research, models, analysis with regulatory agencies to insure results will be accepted _X_
- Develop R&D products:
  - For watershed management plans, not just at the project level _X_
  - To include aesthetics as components of all projects _X_
- Create better models for ground & surface water ___

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Products:

- TN: Inventory of land use alternatives
- TN: Identification and classification of environmental services provided by alternative land use
- ETL: guidance for valuation of environmental

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Benefits

- Direct:
  - Significant economic and environmental savings by providing for method to appraise environmental benefits and evaluate alternative uses of floodplain land, allowing better formulation and consideration of floodplain relocation projects and focus on high value ecological services
- Indirect:
  - Provides fundamental guidance on benefits analysis
  - Enhances capabilities for planning flood damage reduction projects

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Technology Transfer Plan:

- Guidance distributed to USACE districts through IWR and TOWNS websites
- Guidance provided to local governments as well as businesses and personnel owning property within floodplains
- Presentations at various conferences

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Why should the Corps fund this R&D, instead of private industry and/or others:

- Need of federal/state/local agencies for this work; there is not incentive for private industry to fund such research

What is Impact if not started:

- Continued under use of evacuated floodplains due to lack of analysis method will result in more expensive products